

Medical-Technical Specification

Microwave, computer based, diagnostic radiothermometer RTM-01-RES for measurement of the integral internal temperature of soft and bone tissues

	ITEM	CHARACTERISTICS
1	Functions	
1.1	Non-invasive measurement of the internal temperature of tissues	Measurement of the integral internal temperature by Method of Microwave Radiothermometry
1.2	Measurement of the skin temperature	Measurement of the skin temperature by Infrared Sensor
2	Main Technical Characteristics	
2.1	Measuring temperature range, °C	32...38 (can be extended)
2.2	Temperature resolution, °C	0.1
2.3	Accuracy of temperature measurements, °C, no worse	±0.2
2.4	Deep integral temperature measurement of internal tissues, cm	3 – 7 (dependents from tissue type and specific humidity, and probe type)
2.5	Operating bands: • Probe 1.2G (optional add-on) • Probe 3.6G • Probe 4.5G (optional add-on)	1.1 – 1.3 GHz 3.2 – 4 GHz 4 – 5 GHz
2.6	Observation time of the internal temperature measurement, sec, no more	7
2.7	Observation time of the skin temperature measurement, sec, no more	2
2.8	Interface protocol	RS-232 (COM-port)
2.9	Automated temperature data entry	yes
2.10	Software	RTM-Diagnosis

2.11	Manual calibration	Doesn't require
2.12	Mains	220V±10%, 50Hz or 115V±10%, 60Hz
2.13	Power consumption (without computer, monitor and printer), W, no more	20
2.12	Dimensions, mm: <ul style="list-style-type: none"> • Data Processing Unit (DPU) • Internal Temperature Sensor (ITS) • Skin Temperature Sensor (STS) 	342x257x135 200x60x30 150x49x50
2.14	Weight, kg, no more	6
3	Parts	
3.1	DPU	DPU D3
3.2	ITS	ITS 3.2
3.3	Antenna-applicator	A 3.39 NP, (noise-protected)
3.4	STS (Infrared)	STS 2.0
4	Parts (optional at extra costs)	
4.1	Probe 1.2G	
4.2	Probe 4.5G	
4.3	Computer	CPU Pentium 4, 1600 MHz, RAM 512 MB
4.4	Monitor	19"
4.5	Printer	Colour
4.6	UPS or Mains Filter	
4.7	Cart or Trolley	
5	Program RTM-Diagnosis	
5.1	Patient info entry	yes
5.2	Forming patient database with search system	yes
5.3	Visualization of the temperature fields	yes

5.4	Visualization of thermograms	yes
5.5	Colour print	yes
5.6	Expert system	optional
5.7	Examined organs templates	yes
6	Documentation	
6.1	Manual	yes
7	Training	
7.1	Training	4 days/30 hours
8	Warranty	
8.1	Warranty	24 months
8.2	Post-warranty service	Optional at extra cost